

ASTP Crew Named

The Selection of the United States flight crew for the 1975 Apollo-Soyuz Test Project mission was announced Tuesday by NASA.

Prime crewmen for the joint U. S. Soviet Union earth orbital space flight are Astronauts Thomas P. Stafford, commander; Vance D. Brand, command module pilot and Donald K. Slayton, docking module pilot.

Backup crewmen are Astronauts Alan L. Bean, Ronald E. Evans, and Jack R. Lousma.

Support crewmen, who will assist the flight crews in training and test activities, are Astronauts Richard H. Truly, Robert F. Overmyer, Robert L. Crippen, and Karol J. Bobko.

An agreement between the two countries on cooperation in the exploration and peaceful use of outer space was signed in Moscow on May 24, 1972, by President Richard Nixon and President of the Council of Ministers A. N. Kosygin.

The first joint crew training session is scheduled for this summer when Soviet cosmonauts will visit the U. S. for several weeks. American astronauts will spend an equal amount of time in Russia beginning next fall. Future training sessions will be scheduled based on experience gained from these visits.

Joint working groups have exchanged a number of visits during the past two years to discuss technical details of a compatible docking mechanism, communications, flight planning, and other mission subjects. The next meeting of all five joint working groups is scheduled for March at MSC.

Stafford, 42, an Air Force brigadier general, is one of NASA's most experienced and senior astronauts. Since his selection by NASA in September 1962, he has logged 290 hours and 15 minutes in space in two earth orbital flights and one lunar orbital mission—Geminis 6 and 9 and Apollo 10. He has served as Chief of the Astronaut Office, and since June 1971, he has been Deputy Director of Flight Crew Operations. He is a native of Weatherford, Oklahoma.

Brand, 41, a civilian, is the backup commander for the second and third manned Skylab missions scheduled to be flown this year. Selected as an astronaut in April 1966, he served as a crew member for the thermal vacuum testing of the prototype Apollo command module and was an astronaut support crewman for the Apollo 8 and 13 missions. He was backup command module

(Continued on Page 3)

MSC Remembers LBJ

Soon after the nation completed the inauguration ceremonies of one President, another, former President Lyndon Baines Johnson, died of a heart attack.

Johnson's death left the nation without any former executives for the first time since Calvin Coolidge died January 5, 1933.

While serving as President, Johnson led the country toward what he called a "Great Society." He succeeded in getting new laws dealing with everything from aid to education to medical care for the aged and civil rights. He launched a "war on poverty" and moved ahead aggressively on other domestic fronts.

On March 1, Johnson, then President of the United States, made a surprise visit to MSC.

"I believe what Jim Webb and Dr. Gilruth tell me," he told the crowd of several thousand MSC and contractor employees, "but every now and then I like to see for myself. That is one reason I am here today.

"But I had another reason and that was to tell you, on behalf of all of your countrymen who cannot be here themselves, how deeply we appreciate the great work you are carrying forward.

"We have invested many billions of dollars during the past ten years in our efforts in space, continued the President. "But the true value to our nation of this

investment and all the work you are doing here is beyond calculation. . . ."

During his speech, Johnson announced plans for the Lunar Science Institute to be constructed. He said, "I want to announce that we will build facilities here in Houston to help the world's scientists work together more effectively on the problems of space. We are going to have a new Lunar Science Institute alongside this great Center. . . ."

This great new Lunar Science Institute will provide new means of communications and research for the world's scientific community. It will help unite the nation for the great challenge of space."

In closing, LBJ said, "We work to give all mankind its last great heritage. We are reaching for the stars. You are the pioneers and I want to congratulate you for what you are doing and are about to do, in this great human adventure."

Haynes Johnson of the Washington Post stated, "Lyndon Johnson didn't want just a good society, in the term cast by Walter Lippmann in the 1930s; he wanted a great society. He did not want to equal his mentor, Franklin Roosevelt; he wanted to eclipse him.

"No one who saw him up close could ever forget him."



ASTP FLIGHT CREW— These NASA astronauts today were assigned as the United States' flight crew for the Apollo-Soyuz Test Project mission. They are, from left: Donald K. Slayton, docking module pilot; Vance D. Brand, command module pilot; and Thomas P. Stafford, commander. Stafford is an Air Force brigadier general; Slayton and Brand are civilians. The joint U. S.-Soviet Union earth orbital flight is scheduled for July 1975. (NASA Photo)

ROUNDUP

NASA MANNED SPACECRAFT CENTER

HOUSTON, TEXAS



Vol. 12 No. 6

February 2 1973



LBJ at MSC—The late President Lyndon Baines Johnson examines the latest in Apollo haberdashery during his tour of the MSC Lunar Receiving Laboratory March 1, 1968. In the suit was suit technician John Mays. Behind them are then NASA Administrator James Webb and MSC Astronaut Office chief Alan B. Shepard Jr. (SEE MORE PHOTOS ON PAGE 2)

Student Analyzes Lunar Samples

Just as the weather in Houston took a turn for the worse, Dean B. Eppler, 20, a college junior from Berkeley Heights, New Jersey, arrived at the Manned Spacecraft Center to begin a two-month assignment assisting with investigations of lunar samples and photographs.

Dean arrived January 7, "and I immediately got blamed for the rotten weather — every time it rained or got windy or snowed, they blamed me," he laments. Houston had two inches of snow and the coldest weather in sev-

eral years during Dean's first week here.

A geology student at St. Lawrence University in Canton, New York, Dean says he has always been interested in astrogeology, primarily because of the Apollo program. But he considers his temporary appointment to be the result of unusual good fortune.

"In the middle of last February I had this rather precocious idea and asked my department head if he knew anybody at Houston," Dean recalls. He felt he could *(Continued on Page 3)*

Moon Rocks Issued

Acting on recommendations from the Lunar Sample Analysis Planning Team (LSAPT) meeting this week in Houston, NASA's Manned Spacecraft has named the first investigators to be allocated rock samples from the Apollo 17 landing site.

Ten investigators, half of them from foreign countries, will receive the first materials released from the lunar sample curatorial facility.

The first allocations include tiny rock chips and polished thin sections cut from three large rocks. Two of the rocks (#70035 and #75055) are dark gray basalts typical of the material underlying the valley at the Apollo 17 site. The third rock (#76055), a lighter colored recrystallized breccia first described by astronaut-geologist Harrison H. "Jack" Schmitt as an "anorthositic gabbro," may have been part of the mountain side at one time.

Most of the initial investigations will be to determine the ages of the samples by rubidium-strontium and argon analyses.

Early Apollo 17 allocations are being made with the stipulation that the complex research projects be conducted as quickly as possible so that the results can be reported at the 4th Annual Lunar Science Conference held in Houston March 5-8.

Several dozen additional preliminary allocations are expected to be recommended by the LSAPT before the conclusion of its meetings. Included in the material yet to be allocated are samples of the orange soil found at Shorty Crater.

Principal Investigators include, Claude J. Allegre of the Institute *(Continued On Page 4)*

In Memory of Lyndon Baines Johnson



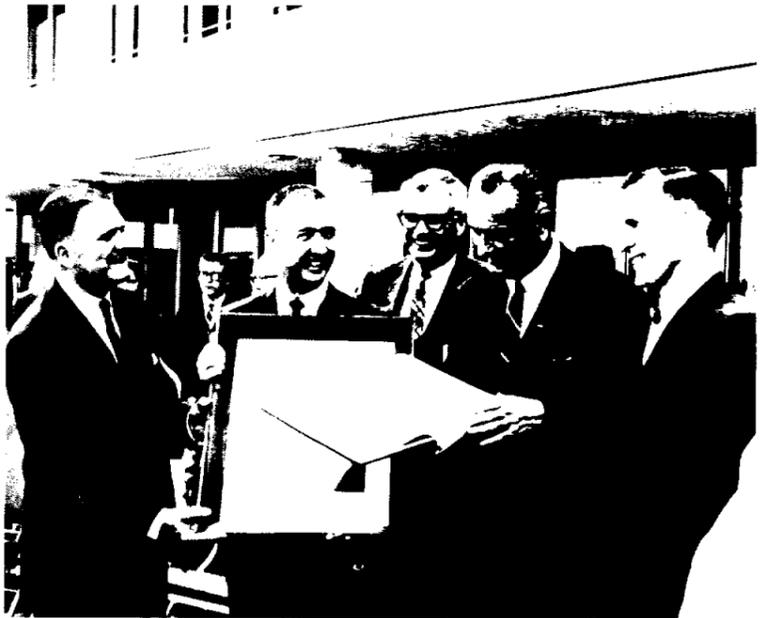
PRESIDENTIAL VISIT CROWD—Part of the crowd of nearly 5,000 space program employees at MSC stood in the 90 degree sun and high humidity of a Texas afternoon, awaiting the arrival of President Johnson June 11, 1965. The President had come to bestow honor on the Gemini IV mission crew and to pay his first visit to MSC.



FIRST LADY GREETING—"Lady Bird" Johnson greets Pat McDivitt as the then Presidential party gathered at Building 30. LBJ and daughter Luci (partly obscured) and former NASA Administrator James E. Webb (right) look on approvingly.



SITS WITH AUDIENCE—Johnson sits with Presidential party as he is being introduced before making a speech during his visit to MSC June 11, 1965



GIFT FOR PRESIDENT—LBJ is presented photographs of the Gemini IV mission by former Astronaut James A. McDivitt and the late Edward H. White as then NASA Administrator James E. Webb (left), and Dr. Robert Seamans, then NASA associate administrator look on.



NEW LIEUTENANT COLONELS—President Johnson is shown as he presented Lieutenant colonel leaves to late Astronauts Edward H. White II, Virgil I. (Gus) Grissom, and former Astronaut A. McDivitt. Photographers surrounded the speaker's stand as they recorded the event on film.



THE CHIEF—President Johnson spoke to several thousand MSC and contractor employees during his March 1, 1968 visit to MSC. With him are former NASA Administrator James Webb, center, and Former MSC Director Dr. Robert R. Giluth. Standing behind them are members of MSC management.

Roundup Swap-Shop

Swap Shop advertising is available to MSC and on-site contractor personnel. Articles or services must be offered as advertised without regard to race, religion, sex or national origin. Ads should be 20 words or less, including home telephone number. Name and office code must accompany, but need not be included in ad copy. Typed or printed copy must be received (AP3 Attn: Roundup) by Thursday of the week before publication.

MISCELLANEOUS

35mm camera, Bell & Howell Auto Reflex w/ 3 auxiliary lenses, prft cndn, rated in 72 by Consumers Report as "best buy," list \$368, ell for \$245. Handley, 482-7041.

Complete TR4-TR250-GT6 Shop Manual \$10. Goodwin, 623-8368.

Triumph Sports car, 15" Michelin radial tire, rim, new tube, tread remaining, xlnt spare, \$20. Davis 524-5504.

Superox Electrostatic headphones, cost \$150., will sacrifice for \$60. Koss Pro 4-A headphones, \$35. Warranty on both, Jones 944-1321.

Used G60-15 Goodyear polyglass tires, \$30 for both 941-8597.

Console stereo., solid state, walnut contemp cabinet, 4-speed changer, AM, FM stereo radio, 944-4357.

35-mm slid projector still in box, brightness control, remote cycle and focus, circular trays, new, \$109.95, sell for \$69.95, 472-4189.

Pool table, 3 1/2 x 7, portable, \$30., Long, 534-2028 aft 5 pm.

Kimball Artist Console piano, li nw, \$650. Conn Tenor Sax, \$325. McMurrey, 534-3625.

Heavy duty Sears 3-way Exercycle in xlnt cndn, \$35. 944-5033.

American oriental rug (9x18), Bavarian china, crystal stemware for 12, strato-rester chair, buffet, china cabinet, Joan Hagn, 944-2317.

6-piece backyard swing set, \$15. 946-4311.

30-30 Marlin rifle, modl 93, collector condition, 337-1839 or 483-3018.

Oscilloscope, Bell & Howell 5", new \$75. T. M. Ward, 481-2266.

Tires, 775x14 (f78x14), 4 Sears Steel rad, driven less than 5 k miles, guar. 40 k miles, \$200 new, now \$100 plus old tires, x 6361.

Lawn mower, gd cndn, \$10. 2 pwr products engines, \$3.50 for both, 334-1895.

3 lawn mowers, \$7, \$10, \$15, Thompson, 332-229.

Binoculars, 7x50 center focus xlnt cndn, \$20. White 488-1024.

Golf clubs, 3 woods, 4 irons, dead eye putter, couple dozen balls, tees, red back bag, wrist score keeper, \$50. White, 488-1024.

Minolta 16mm pocket camera, electric eye, flash on, filters, carrying case, over \$100 new, good buy at \$50. Minolta slide projector for 16mm slides, neat size, would also work for nw instamatic pocket camera slides, wi cae, \$25. White 488-1024.

VEHICLES

64 Pontiac Grand Prix, gd cndn, \$595, 334-1110.

72 Toyota Celica, air, mgs, dyno tuned, 13,500 mi, \$2,600 firm. 3-4-4390.

70 Chevy Kingswood wagon, air, p/s, p/disc brakes, 2 seat, 350 CID, 4 bbl care, 944-4357.

70 Wheel Camper Trailer, econoline 242, sleeps 6 adults or 4 adults and 4 children, semi contained, \$950, 474-2447 aft 6 p.m.

66 Pontiac Lemans Sprint, 2-dr, ht, standard, nw trres, \$450, Jeanne, 483-2591.

67 Toyota, radio, heater, air, white side-walls, gd shope, Young, 333-3834 or ext 4861.

69 Dodge custom Sportman van, LWB, V-8, air, tinted glass, radio, 5900 mi, xlnt cndn, \$1850, Zupp 482-7156.

71 Kawasaki 500 \$650, McMurrey, 534-3625.

59 Ford Galaxy 4-dr, air, gd cndn, Long 534-2028 aft 5 pm.

67 Piper Cherokee 140, Electric trm, toe brks, wh pants, Mark 12, VOR, Clean, 488-3138.

70 MGB, low mileage, nw top, clean, gd price, 946-6481.

61 Ford Van wi overhauled 66 Mustang Engine, nw tires, nw paint, \$500. Wasson 488-2722.

60 Galaxie loaded excl. \$300. 1954 Ford pickup, nw motor, clutch, brakes, gd body tires, nds paint, \$400. 762-4210.

Lambretta motor scooter, \$25. 334-2206.

Chevy and mopar parts stock and hipperf, 1516 Harbor View Galv. 762-4210. 160,000 BTV space heater.

67 SAAB Model 96 wi air cndn, 946-0851.

71 Toyota Mark II wagon, a/c, auto, radio, lug rack, xlnt cndn, \$2195., 488-3903.

Honda SL 125, 1972 model, license title, 1,700 m, outstanding cndn, 334-1895.i

Two 20" bikes, \$8 and \$9., 488-3128.

67 Ford Galaxie 500, 2-dr hdtip, hi mileage, gd 2nd car, \$450. Remington, 331-3719.

65 VW "Squareback" stripped for rough terrain use, prft for deer lease, ncl plans for conversion to camper, \$500 Samounce, 488-6406.

67 Pontiac Lemans, a/c, 3 spd, also new bat/carb/4Sears steel radials, Grogan, x 6361.

Deluxe camper with boot and beds, for long wheelbase pickup, Hawkins, 332-2306.

72 Toyota Mark II Sta Wgn, wi air and lug rack, \$2,595, 481-0095.

69 Dodge Polara 500 convertible, gd cndn, \$1,250, White, 339-1427.

69 Pontiac Firebird convertible, gd cndn, \$1,250, 339-1427.

67 Ply Belv II, 4-dr, radio, air, auto, 318-V-8, gd car, \$575, Avent 488-6538.

Datsun 2402, AM-FM, air, Michelin tires, nw carpets & battery, xlnt cndn, \$3395. 334-229 or 488-1310.

71 MGB 4 spd, new tires & batteries, \$2095. 488-2976 aft 5 p.m.

69 Mercury Marqui Colony Park, 4 seat station wgn, pwr seats, pwr windows, ps, pb, \$2225. 994-8717.

69 Chevy LWB truck wi insulated camper cover, ps, auto, radio, \$1250. firm, 339-1280.

72 VW 411, 4 dr, fact air, radio, heater, less than wholesale, \$2650. 339-1280.

HOUSEHOLD ARTICLES

Sofas traditional-stuffed 94 inch green and 100 inch gold, \$50, each. Two arm-less fireplace chairs, \$25 each, 16 cu. ft. Coldspot chest-freezer \$50. 481-2371.

Vinyl couch, recliner and chair for den or living room gd cndn, \$100, 946-4311.

Kingsize Early American Bookcase Head-board, maple \$85, 488-3128.

Two twin beds, \$30 each, burnt orange bedspreads and sheets thrown in, 333-2728.

Twin size mattress, make: Supreme, prft cndn, \$20. Youth bed wi mattress and spring prft cndn, \$35, baby crib wi mattress, \$10.

PROPERTY AND RENTALS

Lot in Willowood Resort City, wooded, 2 bics from lake, Hwy 69, 29 mi N. of Beaumont, \$3200, 474-2447 after 6 p.m.

Sagemont 4-2-2, fireplace, living, dining family rms, gas appliances, detached garage, Campbell, 481-1826.

For lease or sale, house wi 4 bdrms, 2 baths, ctrl a/h, fireplace, carpeted, fenced, built-ins, 488-4451 after p.m.

Sun Meadow, Colonial, 4 bdrms, 2 1/2 baths, on golf course, 2500 sq. ft., nvr lived in, assume existing mortgage \$39,200 total move-in cost, \$500, 333-4354.

Wooded recreation lot for sale at Eldorado Rec area; would prefer trade for self-contained trailer, 944-5033.

Sagemont 3-2-2 colonial, fenced corner lot 6% locn, Ward 481-2266.

Timbercove 4-2-2, contemp lrg Oaks and Pines, shag fenced fireplace, 2300 sq. ft. \$35,900, Holley, 334-2382 after 5 pm.

Two bdrm furnished cabin, 1 hr away on Lake Granada, Ak, great fishing, swimming and water skiing, 334-2206

Chicago area large beautiful home on water front, surrounded by forest, in exclusive neighborhood, plush interior, has everything incl 9 ft wet bar and stone fireplace, \$58,900, 935-6141.

PETS

6-yr-Buckskin horse, saddle and bridle, \$300.

Handsome male Dalmatian, registered, gd line, 4 yrs, fine watchdog, pet and stud, \$50. Jones 944-1321.

Darling puppies, free, Dashund-Poodle Terrier heritage, 2 males, 1 female, 6 wks old, availabl singly or as a lot, mother included.

Free kittens, 2 left, both calico, Lousma, 482-2360.

BOATS

1968 Coronado 25 Sail Boat, \$6750. 474-2447 aft 6 pm.

WANTED

Boat Trailer, 18' 90cc Honda Engine for parts, J. W. Kalk 554-4207.

Ladies western outfit sz 10, boots sz 8, 3041 or 626-0487 aft 6 pm.

Spanish or contemp 4-2 1/2-2 Oakbrook West or equiv, Bullock 774-6602.

Pianos to tune in your home, Jim Bates, 944-4687 aft 5 pm.

Grand piano 5'11" or large, in xlnt cndn, 333-2340.

Anyone interested n forming car pool during the hours of 7:30-4:00 leaving from South Houston High School area-Arlington sq apt. S. Franks, 946-0259.

Lionel Electric trains, Ives, Buddy L, etc 762-4210.

One student desk, Foster, 487-0155.

Take Stock in America



BUY U.S. SAVINGS BONDS



INVESTIGATING LUNAR SAMPLES—Dean B. Eppler, is seen looking at detailed lunar photographs. Eppler, a college junior from Berkeley heights, New Jersey, recently began a two month assignment at MSC assisting with investigations of lunar samples and photographs.

ASTP

(Continued From Page 1)

pilot for Apollo 15, and he has participated in operational support roles for other Apollo missions. Brand was born in Longmont, Colorado.

Slayton, 48, a civilian, is one of the original seven astronauts selected in April 1959. He was scheduled to pilot the Mercury 7 mission, which flew in May 1962, but was relieved of that assignment when a heart condition was discovered. He was named Coordinator of Astronaut Activities and since November 1963 has been Director of Flight Crew Operations. In March 1972, following a comprehensive medical review, Slayton was restored to full flight status. He is a native of Sparta, Wisconsin.

Bean, 40, a Navy captain, has been an astronaut since October 1963. He logged 244 hours and 36 minutes of space flight as lunar module pilot of Apollo 12 and was the fourth man to walk on the moon. He is commander of the second manned Skylab mission. A native Texan, Bean regards Fort Worth as his hometown.

Evans, 39, a Navy captain, was command module pilot of the recently completed Apollo 17 mission in which he logged 301 hours and 51 minutes in space. He was selected as an astronaut in April 1966. Evans was born in St. Francis, Kansas.

Lousma, 36, a Marine Corps major, has been an astronaut since April 1966 and is the pilot for the second manned Skylab mission. He is a native of Grand Rapids, Michigan.

Truly, a Navy commander; Crippen, a Navy lieutenant commander; Overmyer, a Marine Corps major; and Bobko, an Air Force lieutenant colonel, were transferred to the NASA astronaut team in 1969 after the Department of Defense Manned Orbiting Laboratory program was cancelled.

Eppler

(Continued From Page 1)

learn more about lunar geology through direct contact with the materials and personnel available at the Manned Spacecraft Center.

As it turned out, William Romey, head of geology department at St. Lawrence, had met NASA geology branch chief William Phinney at a scientific conference.

Dr. Phinney was looking for someone to assist Dr. Grant Heiken, a principal investigator of lunar orbital photography. Dean's interest, enthusiasm and previous experience all made him seem a logical choice.

"I fully intended to blow the better part of my life's fortune to come down here," he remembers.

Looking at detailed lunar photographs, Dean says, "appears to be a no-work kind of thing, because you just sit and stare at a photograph." But hours of analysis, he hopes, may lead him to a better understanding of crater chains.

In many places on the surface of the Moon, craters appear to line up in chains, but it is difficult to determine whether a series of craters is a real crater chain or just a synthetic one" produced by coincidental events, Dean says.

"Some of the crater chains are pretty obviously formed by secondary impacts," from the boulders splashed in a stream when a large meteorite struck the Moon, while other chains, Dean notes, are almost certainly volcanic in origin.

Dr. Heiken and Dean hope to put together a paper this spring on the varieties of crater chains and their origins.

In addition to viewing the photographs from Apollo 15, 16 and 17, Dean is also assisting with preliminary investigation of some of the Apollo 17 soil samples.

During his first week at the Manned Spacecraft Center, Dean spent part of his time as an observer in the Lunar Receiving Laboratory, where the Apollo 17 samples are being processed.

Dean says his undergraduate training came in handy when a discussion arose concerning some very small crystals in a lunar sample. Dean suggested an identification that some of the more experienced scientists had overlooked.

ROUNDUP

NASA MANNED SPACECRAFT CENTER HOUSTON, TEXAS



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Editor: Janet Wrather Photographer: A. "Pat" Patnesky

Moon Rocks

(Continued From Page 1)

de Physique du Globe, France, William C. Compston of Australian National University; Paul W. Gast of MSC; Johannes Geiss of the University of Berne, Switzerland; T. Kirsten of Max-Planck Institute for Kernphysik, Heidelberg, Germany; V. Rama Murthy of the University of Minnesota; John A. Philpotts of Goddard Space flight Center; Mitsunobu Tatsumoto of U. S. Geological Survey, Denver Colorado; Grenville Turner of the University of Sheffield, England and Gerald J. Wasserburg of California Institute of Technology.

Lockheed Holds Essay Contest

The National Management Association, Lockheed Houston Chapter, invites entries for the Annual High School Essay Contest.

The contest, which is held to generate interest among students in space and environments, is conducted among high school juniors and seniors in the Houston area school districts.

The essay topic is: "Man, His Environment and Space." Each entry should be certified by the principal of the high school and should be typed double spaced. The minimum number of words is 300, the maximum is 500.

Entries will be judged by a panel of three appointed judges whose decisions will be final. The essays will be judged on originality, composition and clarity of thought.

Three prizes will be awarded. First Prize is \$50, Second Prize is \$40 and Third Prize is \$30.

The entries must be received no later than midnight, February 12, 1973.

Results of the contest will be announced by March 12, 1973. Winners will be notified and invited to attend the NMA LHC dinner meeting for the presentation of awards.

Scholarship Program Now Changed

Changes in the MSC Scholarship Program were recently announced by Marilyn J. Bockting, chairman of the Scholarship Committee of MSC's NASA Exchange.

The number of scholarships to be maintained has increased from 8 to 10, and the maximum value of the scholarships, formerly \$2400, is now \$3000. This increase in funds will permit sponsorship of students who choose to pursue 5-year programs.

Also, the scholarship program which was previously limited to students seeking a baccalaureate degree, will now sponsor students pursuing any recognized degree from an accredited college.

A special scholarship, reserved for a student who plans to pursue an engineering degree, was established to honor the late Chief of the Structures and Mechanics Division, Joseph N. Kotanchik.

Employee Gets 20-Year Service Award

Ann Normand of MSC's Science and Applications Division recently received an award for 20 years of Federal Service.

Ann began her civil service career at the War Ration Board at Kelly Air Force Base in San Antonio, Texas.

While at Kelly, Ann progressed from a gasoline coupon distributor to Administrative Assistant to the Special Weapons Officer.

In 1965, Ann came to MSC as a Data Records Specialist. In this capacity, Ann initiated graphic repository, a central storage place for all kinds of art work.

After reductions in MSC funds forced this job to close, Ann went to work for Science and Applications. In March of 1972, she took over her current job of maintaining records of lunar samples on loan to principle investigators.

Applicants are needed for this special scholarship.

Students who are currently attending college but need financial assistance as well as high school students who graduate in 1973, are eligible to apply for the scholarship program.

College students will be asked to furnish records which confirm that they are in good scholastic standing, and high school students will be required to have a grade average of 3.5 on a 5.0 scale or 2.5 on a 4.0 scale.

Although financial need will be considered in selecting scholarship winners, dependents of all personnel who have been employed by MSC for at least two years, effective January 1, 1973, are eligible to apply.

Scholarship winners are furnished \$300 per academic semester or \$200 per academic quarter, totaling no more than \$800 a year.

Deadline for submitting applications is March 15. An MSC Announcement with details regarding applications for the program will be released soon.

Remote Technique Maps Land Use

Remote sensing techniques developed by NASA for space and aircraft investigation of earth resources have been used to map land uses in an 188-county test site surrounding Houston, Texas.

The multi-colored map detailing in 20 land uses is now available to the public from the U. S. Geological Survey.

The mapping project was undertaken by the Earth Observations Division of MSC to demonstrate the effectiveness of remote sensing as a means of preparing fast, accurate land-use inventories for large areas.

The Houston Area Test Site is a 15,700 square mile rectangle stretching from the Gulf of Mexico 125 miles north to Lake Livingston, and from east of Galveston Bay to Matagorda Bay in the southwest.

Some 136 photographs each covering about 275 square miles, were selected for intensive analysis.

The 18-county map is available in three sizes from the Denver Distribution Section, U. S. Geological Survey, Federal Center, Building 41, Denver, Colorado 80225. Prices are as follows:

- 6½'x8', 1:125,000 (1"=2 mi.) —\$25/set of 21 sheets
- 3¼'x4', 1:250,000 (1"=4 mi.) —\$5/set of 4 sheets
- 21"x24", 1:500,000 (1"=8 mi.) \$1/one sheet.

JIMMY WARREN MEMORIAL

Bowling League

January 25, 1973

Team standing	W	L
Ball Busters	43	25
Jokers	41	27
Ascenders	39	29
Hexes	39	29
Strikeouts	38	30
Pin Pounders	35	33
Clowns	33½	34½
Spoilers	33	35
Chokers	31½	36½
Alley Oops	31	37
Team No. 9	31	37
Hertz	29½	38½
Mixers	29½	38½
Fabricators	22	46

High team set (3 games) 12-21-72

Strikeouts—3169

High team game 1-25-73 —

Chokers—1123

High team game 11-23-72 —

Spoilers—1121

High Individual set 12-7-72 Ken

Hecht—758

High Individual game 1-18-73

Hohn Belan—287

Sock some away.



Take stock in America.

Buy U.S. Savings Bonds

MSC Visitors Sign Register

Who cares about the space program?

People from all 50 of the United States and from 54 foreign nations, that's who.

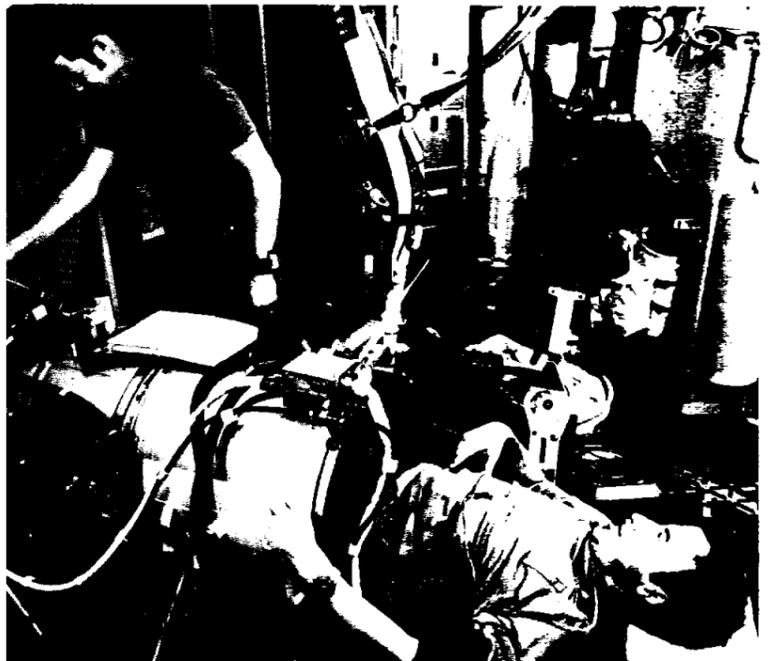
Nearly 4,000 in number, they were visitors to the Manned Spacecraft Center during the first three weeks of January who took time to sign a visitors' register set up to sample the sightseers.

Predictably, the lion's share of the crowd came from around the United States — 3,235 altogether.

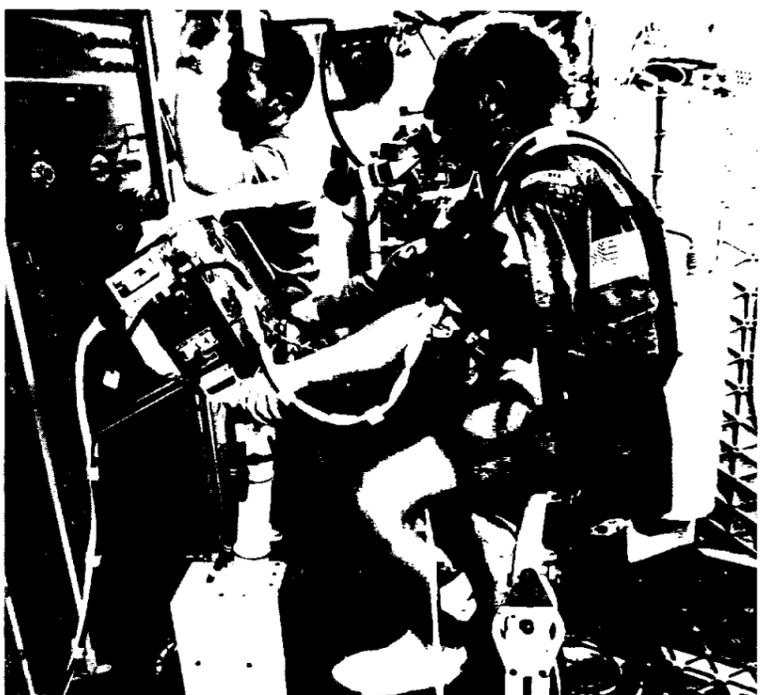
Of the 547 foreign guests who accepted Public Affairs Office Visitors Service's invitation to identify themselves, 107 came from six provinces of Canada while 39 came from southern neighbor Mexico.

Both Brazil and Germany logged 31, England 28, Venezuela 27, and Hong Kong and Japan 23 and 22 respectively. Even Aruba was represented.

The 3,782 visitors who signed in represented 14 percent of the total of MSC's guests between January 2 and 21.



PRACTICE MAKES PERFECT—Astronauts Charles "Pete" Conrad, Dr. Joseph Kerwin and Paul Weitz, crew of the first manned Skylab mission, recently took part in a simulation of the initial Skylab flight. Dr. Kerwin (above) Skylab science pilot, adjusts lower body negative pressure device as Pilot Weitz serves as subject in this medical experiment which measures the loss of cardiovascular reflex in weightlessness. Skylab commander Conrad (below) rides the bicycle ergometer which produces measured work loads for use in determining man's metabolic effectiveness. Pilot Weitz monitors the control panel for this experiment.



20-YEAR—Service of Science and Applications award for 20 years of Federal service. Mrs. Normand is a Data Records Specialist. Presenting the award is Anthony Calio, also of Science and Applications.